Name:

at1110paper_practice_test (v46)

1. Expand the following expression into standard form.

$$(3x + 7)(2x - 5)$$

$6x^2 - 15x + 14x - 35$

$6x^2 - x - 35$

2. Solve the equation.

$$(8x - 5)(7x + 6) \;=\; 0$$

$x = \frac{5}{8}$ $\qquad$ $x = \frac{-6}{7}$

3. Expand the following expression into standard form.

$$(5x - 7)(5x + 7)$$

$25x^2 + 35x - 35x - 49$

$25x^2 - 49$

4. Expand the following expression into standard form.

$$(7x - 4)^2$$

$49x^2 - 28x - 28x + 16$

$49x^2 - 56x + 16$

5. Factor the expression.

$$x^2 + 6x - 16$$

$$(x + 8)(x - 2)$$

6. Factor the expression.

$$49x^2 - 36$$

$$(7x - 6)(7x + 6)$$

7. Solve the equation with factoring by grouping.

$$20x^2 + 8x + 15x + 6 \;=\; 0$$

$$(4x + 3)(5x + 2) = 0$$

$$x = \frac{-3}{4} \qquad x = \frac{-2}{5}$$

8. Solve the equation.

$$8x^2 + 3x - 8 \;=\; 3x^2 + 4x - 2$$

$$5x^2 - x - 6 = 0$$

$$(5x - 6)(x + 1) = 0$$

$$x = \frac{6}{5} \qquad x = -1$$